Leigh Creek Energy

ElectraNet Revenue Proposal 2018 – 2023

Public Response in relation to Davenport – Leigh Creek 132kV Line

7th July 2017

Attention: Mr Sebastian Roberts

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Disclaimer

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This presentation may also contain non-IFRS measures that are unaudited, but are derived from & reconciled to the audited accounts. All references to dollars, cents or $ in this presentation are in Australian currency.

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1 Executive Summary

Leigh Creek Energy (**LCK**) believes that the Leigh Creek Energy Project (**LCEP**) has the ability to provide a long term solution to the energy needs of South Australia (**SA**). Some of the key features of the LCEP detailed in this submission are summarised below:

- The LCEP is a significantly advanced project with ongoing on-site programs of work, an upgrade to 2P reserves expected upon successful completion of the Pre-Commercial Demonstration (**PCD**) and thereafter the ability to move to production of electricity
- The LCEP will have very competitive syngas and power production costs compared with conventional and other unconventional gas producers and gas fired generators
- LCK has a proven track record of raising capital and attracting strategic partners and is therefore confident of access to the required development capital post PCD
- The project is located in a major service town to the region which is currently struggling with the recent coalfield closure – the LCEP will provide short and medium term employment solutions for the town

2 Line Reinforcement Benefit to Leigh Creek Energy

Reinforcement of the Upper North East Line (Davenport - Leigh Creek 132kV line) will ensure a reliable source of electrical power during the construction of LCK's commercial production facilities and would also provide reliable back up power supply for the LCEP as it diversifies from power production to the supply of other products such as natural gas, ammonia and ammonium nitrate products (fertiliser and industrial explosives).

3 About Leigh Creek Energy

LCK is an emerging gas company focused on developing its LCEP, located in South Australia. The LCEP will produce high value products such as electricity, methane and ammonium nitrate products (fertiliser and industrial explosives) from the remnant coal resources at Leigh Creek, utilising In Situ Gasification (**ISG**) technologies, and will provide long term growth and opportunities to the communities of the northern Flinders Ranges and South Australia.

The Company is committed to developing the LCEP using a best practice approach to mitigate the technical, environmental and financial project risks.

Leigh Creek Energy acknowledges the Adnyamathanha people, the Traditional Owners of the land on which its operations occur and pay our respects to their Elders past and present.

LCK is led by an experienced executive team with a proven track record in listed resource development companies and relevant, internationally recognised ISG project experience. Please refer to the LCK website for further details at www.lcke.com.au.

4 The Leigh Creek Energy Project

LCK's major project is the LCEP which aims to develop a large, coal resource within its Petroleum Exploration Licence PEL 650. The Licence is approximately 550km north of Adelaide, SA, see Figure 1 . The coal seams will be developed through ISG technologies which have been technically proven in past projects around the world.

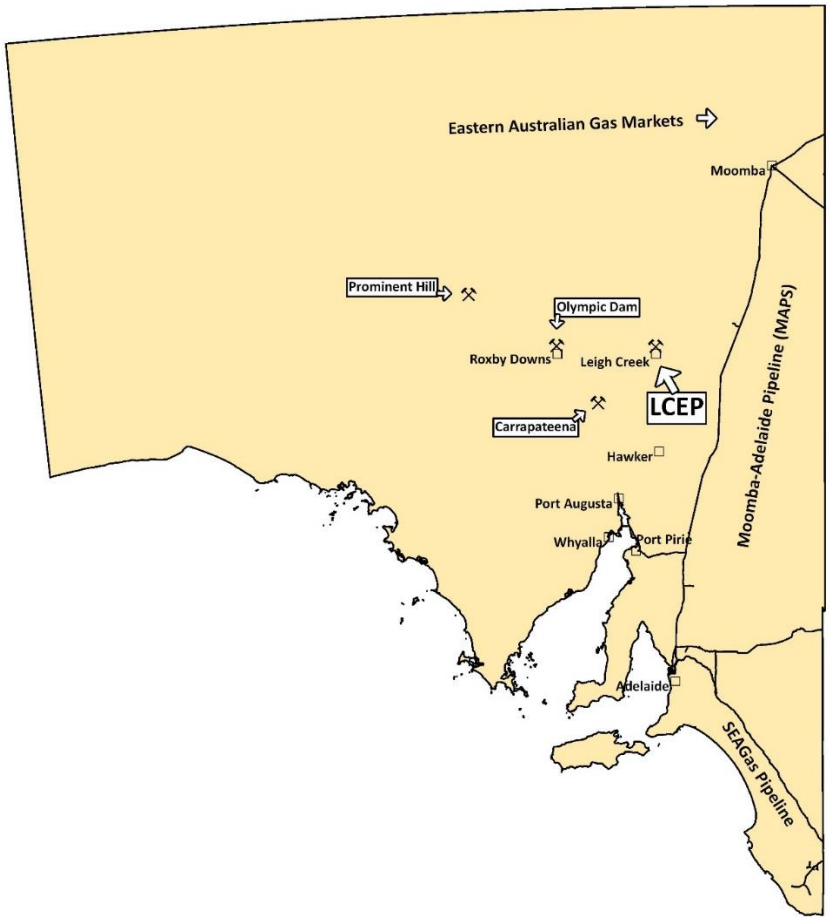

Figure 1- LCEP location map

Leigh Creek is an ideal location for ISG and the LCEP due to:

- Mine and town infrastructure (residential and commercial property, leisure facilities, commercial airport, power transmission lines, water supply, road and rail network providing transport logistics);
- Remoteness from major population centres;
- Isolated, self-contained groundwater system with minimal users; and
- Major industry users of electricity in the region.

Energy will be produced from the coal resource using ISG technology and industry standard gas processing facilities. Steam and oxygen or air are injected down a borehole into the coal to convert it from its solid state into a gaseous form in a series of chemical reactions called pyrolysis. Pyrolysis results in the production of synthesis gas (syngas) which is predominately comprised of hydrogen, carbon monoxide, methane and variable amounts of carbon dioxide, nitrogen and other gases. Syngas is extracted through a production well, cleaned and processed on the surface for sale to end users.

ISG is poised to become a valuable option to help meet future domestic and global energy demand. ISG can deliver electricity from syngas fired gas turbines on a commercial scale while mitigating the impact on the surrounding environment and at a much lower cost than current natural gas fired generators. LCK expects to be a low cost producer of power in a tight market with rising prices.

Three project phases have been defined for the LCEP:

1. Environmental monitoring program and approvals;

2. Pre-Commercial Demonstration – (**PCD**); and
3. Commercial phase.

Leigh Creek Energy have assessed the commerciality of various product streams from the production of syngas at Leigh Creek. This assessment has been prepared by LCK in conjunction with experienced and specialised independent consultants. In an energy constrained market, the LCEP provides a cost effective solution to energy security in SA. Affordable energy from ISG will permit, in a staged development, low cost domestic supply of baseload electricity to the SA grid and regional industrial customers. Given recent developments of Leigh Creek Coalfield closure and as Leigh Creek is considered to be a highly important service town for the broader region, efforts to stimulate investment in the area are crucial for the future of industries and communities in the region.

5 Government support for ISG and LCK

South Australia's *Petroleum and Geothermal Energy Act 2000* (**PGE Act**) establishes an efficient and objective regulatory process for the LCEP. The 'one-stop shop' approach in South Australia considers approvals on a case-by-case basis whereby risks are identified and managed down to as low as reasonably practical.

This is achieved through the development of an EIR - Environmental Impact Report (which identifies the potential environmental risks and the extent to which these are likely and manageable) and the SEO - Statement of Environmental Objectives (based on the EIR, it proposes a management and monitoring regime).

The SA Government bureaucracy ranks highly each year in the Fraser Institute Surveys which rank different jurisdictions across the world for mining and petroleum development approval processes.

Following his visit to the Shanghai, China in April 2016 the SA Premier highlighted achievements of the trip. Highlighted achievements included a heads of agreement signed by the Shanghai Electric Power Generation Group and Leigh Creek Energy to explore joint development of a gas-fired power station in SA.

6 Commercial Production Scale

There a number of large potential customers for syngas fired power generation both via the grid and in the region including:

- BHP
- Oz Minerals
- Arrium
- Iron Road
- Rex Minerals
- Archer Exploration

The large resource of energy available at Leigh Creek would allow production of syngas to produce 450-550 MW to the SA grid over a long period of time.

7 Leigh Creek Energy Project Progress and Schedule

LCK announced on 30 March 2017 it had successfully completed a staged capital raising of $21.85m (before fees) to cornerstone investor, China New Energy Group Ltd (**CNE**) and sophisticated and professional investors. The first 2 of 3 share placements to CNE settled in advance of due dates; tranche 3 is subject to shareholder vote at an Extraordinary General Meeting to be held in the second half of 2017.

The programme for drilling baseline groundwater and pressure monitoring wells is complete. This programme comprised three groundwater monitoring wells and one pressure monitoring well.

Data from these wells will now be analysed to complete the conceptual model for environmental baseline characterisation. The conceptual model identifying the baseline environmental conditions of the PCD is an essential input into the documentation requirements for the regulatory approval to construct and operate the PCD.

With funding for the PCD also secured, the driving focus of the LCK Operations team is towards demonstrating generation of syngas in the fourth quarter of 2017. The project progess and next steps are shown in the following graphic:

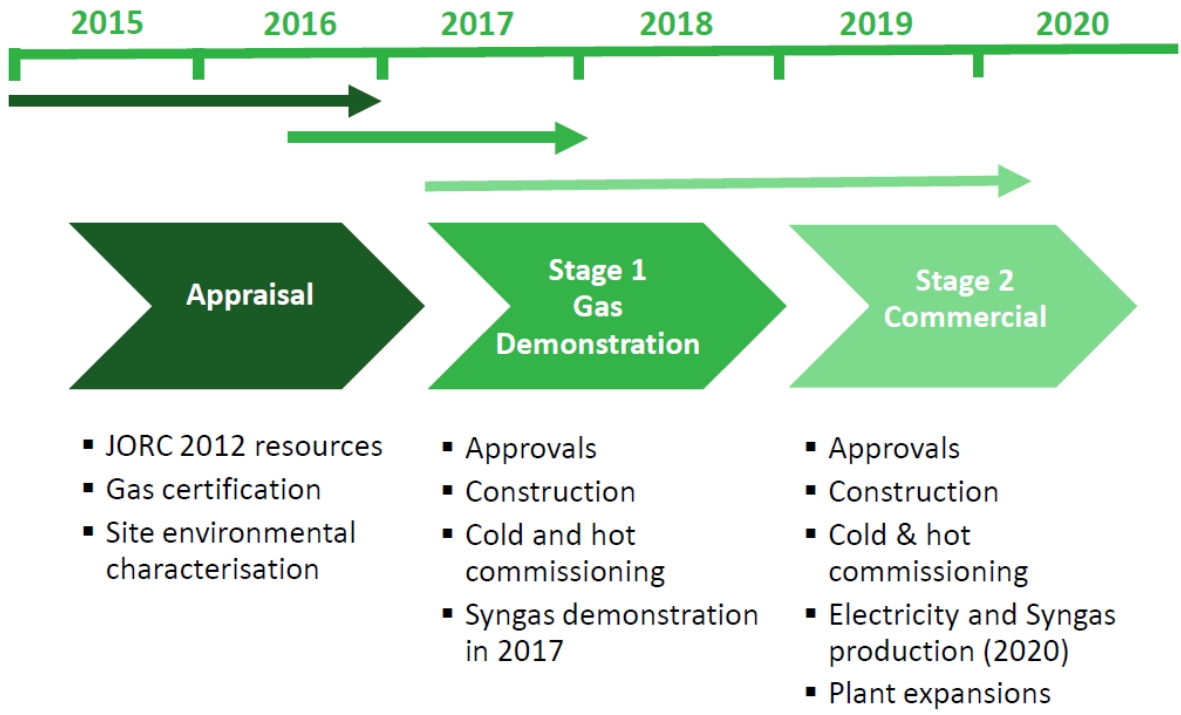

Figure 2 - Project Progress and Next Steps

8 State and Regional Benefits

LCK believes that its LCEP has the ability to provide a long term solution to the energy needs of SA as it has a number of advantages as a project.

The LCEP is not linked to the domestic gas price which protects the project from supply constraints and gas price fluctuations which are having a negative impact on existing gas fired generators in SA. The LCEP also has very competitive syngas and power production costs compared with conventional and other unconventional gas producers and gas fired generators.

The project is located in a major service town to the region which is currently struggling with the recent coalfield closure – the LCEP will provide short and medium term employment solutions for the town.

Given the scale of the project once it has reached commercial production, it will also be significant for the State in terms of employment and revenue. Additionally, the provision of cheap energy could facilitate the development of additional mines in the region and cheaper energy will also help ensure the survival of other industries that are sensitive to energy prices.